Preparation of Biochar from Coffee Stems

Indian Coffee Trade Delegation Visit to Finland and Estonia
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महात्मा गांधी जी - संस्मरण
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Your views, opinions & observations are welcome as long as it is in the spirit of the magazine’s principles and values, and may be sent to: editor.indiancoffee1@gmail.com

The publisher reserves the right to respond/publish the same in this magazine.
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सफल बनाएं।

कॉफी बोर्ड
वाणिज्य एवं उद्योग मंत्रालय
भारत सरकार
Converting agricultural waste into a soil enhancer that can hold carbon, boost food security, and increase soil biodiversity, is a simple and powerful tool to combat climate change. In recent years ‘Biochar’ – a charcoal prepared from agricultural biomass is attracting interest around the world for its potential to improve soil health. The Central Coffee Research Institute (CCRI) has explored the possibility of preparing Biochar from coffee stems and other coffee processing waste materials. An article on the production of Biochar from coffee stems and coffee processing by-products at farm level is presented for the benefit of the coffee growers.

Like any crop, the coffee plant is vulnerable to attack of pests and diseases. Timely and efficient crop protection measures are very much essential to minimize crop losses, improve production and quality of the produce. We are bringing out an article on ‘Pests of young coffee plants and their management’ for the benefit of coffee growers.

Research and Extension department of Coffee Board is regularly organizing the capacity building programmes in all major growing regions to impart hands-on training to growers and workers with an objective to improve their skills in agricultural practices at farm level which will go a long way in improving the production and productivity. A brief report on the Capacity Building Programme organized by the Regional Coffee Research Station (RCRS), Diphu, Assam for Tribal coffee growers of Meghalaya and Nagaland is presented in this issue.

Coffee trade delegations / trade missions provide an effective platform for exporters to meet the key decision-makers and showcase the brand, gain valuable contacts through networking, and strengthen trade ties. Such delegations help the exporters in consolidation of their presence in established markets and also find newer markets. Coffee Board has recently lead a trade delegation to Helsinki, Finland and Tallinn, Estonia during October 2019. A brief report on this trade visit is presented in this issue.

The International Day on 1st October is the global celebration of coffee. It is an occasion to celebrate one of the most popular beverages in the World and raise awareness about sustainability of coffee cultivation as well as fair trade practices in the coffee industry. Various field units of Coffee Board had celebrated International Coffee Day this year by conducting workshops, seminars, coffee tasting sessions etc. A brief report on the celebration of International Coffee Day by Coffee Board office in Virajpet Zone in association with Krishi Vigyan Kendra, Gonikoppal, NABARD and Puthari Farmers Producers Organization is presented in this issue.

Besides, the regular features viz. Market Watch, Calendar of Coffee Estate Operations etc. are presented in this issue.

Hope, our readers will enjoy the entire content of this magazine over a good cup of coffee!

Dr. Srivatsa Krishna
Secretary
Carbon is one of the fundamental building blocks of soil health. Though carbon does not provide nutrition directly to the plants, it is closely linked with the availability & recycling of plant nutrients, maintaining of native soil organic matter content and proper functioning of the soil system. Therefore, carbon amendments are so imperative to plant production systems involving soil. Carbon amendments are products added to the soil to increase soil carbon content. They include living & non-living plant residues incorporated into the soil as well as compost & organic manure.

**Biochar:**

“Biochar” is a carbonized solid form of organic material resulting from heating of biomass in an oxygen-limited environment. Biochar is a highly stable form of carbon containing 20 to 60% carbon depending on the nature of the feedstock and the production system.

In recent years, biochar is attracting interest around the world for its potential to improve soil health. Studies have indicated that addition of biochar to soil can have diverse effects. The most striking effect is the increase in soil carbon content. Under normal conditions, soil carbon content increases slowly, typically as a result of applying organic matter such as compost (or) animal manure. Other potential benefits of biochar includes, biochar being porous in nature generally develops a high cation exchange capacity (CEC) which improves the soil’s ability to retain nutrients. Therefore, addition of biochar not only reduces the amount of fertilizer required but can also reduce leaching of excess nutrients into local waterways. Many biochar has high pH value and imparts liming effect to the soil paving way for the reduction of external addition of liming materials.

Conversion of plant biomass such as wood to biochar stores carbon that otherwise would have been emitted as Carbon-Dioxide (CO₂) when the biomass is decomposed. Thus, production of biochar from plant residues/by-products is considered as Green Technology, as it reduces emission of Green House Gases (GHGs).
Biochar from Coffee Stem and coffee processing by-Products:

Coffee in India is grown as a silvi-horticultural crop under two-tier tree cover for the optimal performance. The amount of coffee residues from cultivation to cup exceeds the total amount of coffee cherries harvested, when tree pruning and leaf litter are taken into consideration. Indeed, it is impractical to utilize all the coffee crop residues/by-products resulting from coffee cultivation and processing for a variety of reasons. The present article addresses the production of biochar from coffee stem and coffee processing by-products.

A. Collar Pruned (or) Uprooted White Stem Borer Infested Arabica Stem:

Coffee White Stem Borer (CWSB) is the most dreaded pest of Arabica coffee in India. Due to the concealed nature of this pest, the management measures are difficult and require timely implementation of control measures. The recommended practices for the management of CWSB mainly targets on eggs and early stages of the larvae, apart from tracing and uprooting of infested plants before the commencement of flight periods (April to May & October to December).

The Research Department of the Coffee Board evolved integrated pest management strategy with updated control measures from time to time. However, in recent years the adoption of recommended interventions at estate level has been constrained by the shortage of skilled work force and change in climatic conditions leading to the flare up of the pest. Further, non-adoption of timely phyto-sanitary measures and lack of community approach in adopting the control measures, the CWSB pest continues to be a major threat for Arabica coffee cultivation especially in coffee growing districts of Karnataka.

As per the current recommendation, the collar pruned (or) uprooted CWSB infested Arabica stem should be burnt immediately. As the pest develops faster in uprooted stems, storing them on the estate will result in faster emergence of the borer and act as reservoir for the supply of CWSB beetle. Alternately, if the uprooted have to be used for other purposes, then uprooted and collar pruned stems should be immersed under water for a minimum period of ten days so as to kill all the stages of the borer inside the stem. Any lapses in the “water-soaking” process and also transporting fresh up-rooted stem for firewood purpose from the infested area to un-infested area will result in spread of infestation.

B. Parchment Peel, Cherry Husk and Spent Coffee Ground:

At estate level, wet processing of coffee cherries leads to generations of two by-products viz., pulp (coffee fruit skin) and effluent (used water released while processing of coffee). Coffee fruits skin is converted into compost/manure while treated effluent is used for irrigation within the coffee plantation itself after appropriate treatment.

Coffee processing at curing factory results in the generation of by-products such as cherry husk and parchment peels. Every tonne of
cherry & parchment coffees generates 500 kg of cherry husk and 200 kg of parchment peel, respectively. Spent Coffee Ground (SCG) is the by-product resulting from soluble/instant coffee manufacturing units. It is estimated that every tonne soluble coffee generates 2.5 tonne of SCG. Currently, the cherry husk, parchment peels and SCG are being used for fuel purpose in tobacco curing, hotel industry, brick industry etc.

Biochar production of collar pruned (or) uprooted CWSB infested Arabica stem results in the total destruction of CWSB population in the uprooted/ collar pruned stems besides yielding the biochar. Currently, the cherry husk, parchment peels and SCG are used straight away for fuel purpose. Very few enterprising coffee planters-cum-processers converts cherry husk and parchment peels into briquettes and supply them to the catering (or) tobacco curing units, to use as a source of heating energy.

Transformation of the above said coffee derived by-products into biochar will be more attractive in the context of sustainable production of coffee cultivation (or) Carbon Farming Initiative (CFI). CFI is a scheme whereby farmers, foresters and landholders will be able to generate and trade carbon credits to create additional income.

**International Biochar Initiative**

The Ithaka Institute for Carbon Intelligence (based at Europe) has recently published a technical document titled “The Potential for Biochar to Improve Sustainability in Coffee Cultivation and Processing - International Biochar Initiative (October 2018)”. This technical document highlights the initial findings of the “Coffee and Biochar Demonstration Projects” contributed by various coffee producing countries participated in the demonstration project (Brazil, Peru, China, Colombia, Tanzania, Laos, Uganda, Ethiopia & Vietnam). The countries which participated in the biochar demonstration project studied the potential of biochar on various aspects in the coffee production and processing which include residue management & improved soil fertility, improving coffee yield & quality, coffee residue biochar for filtration and gasifying coffee wastes to provide heat for coffee bean drying.

Biochar can be produced by several methods ranging from cost-effective biochar stove/kiln to industrial gasifier. Some of the simplest technologies are biochar kilns constructed from brick, metal (or) concrete which produce biochar along with certain amount of greenhouse gas emissions. Improved technologies pyrolyzes the feed materials at specific temperatures under oxygen-limited condition with minimal emissions of GHCs and maximum energy efficiency to produce biochar with consistent characteristics.

**Results of preliminary trials on production of biochar conducted at CCRI:**

With the main objective of the total destruction of CWSB population at on-farm level, the Central Coffee Research Institute located at Chikmagalur has recently conducted preliminary on-farm trails using a locally fabricated biochar kiln using 200 lt metal drum, similar to the biochar kiln developed by the Central Research Institute for Dry Land Agriculture (CRIDA, ICAR), Hyderabad. The biochar from the collar pruned/uprooted CWSB infested Arabica stem was prepared following the protocol detailed in the CRIDA – NICRA Bulletin.

The results of feeler trials indicated the biochar yield from CWSB infested coffee stem ranged from 25 to 30% (i.e. every one-hundred kg of coffee stem generates 25 to 30 kg of biochar). While, the biochar yield from cherry husk was around 40%. The technical data on pH, moisture content and total organic carbon estimated in the fresh stem & biochar from stem sample and
fresh cherry husk and biochar obtained from cherry during the course of the preliminary trial are presented in tables 1 & 2, respectively.

**Biochar kiln operational process**

**Flow chart of steps involved in the biochar production from coffee stem**

- Mount the biochar kiln over three flat stones on a level surface (min. of about 20 cm height) to facilitate primary air flow through the bottom vent.
- Load the kiln with the cut pieces of freshly extracted coffee stem up to 2/3 of the kiln capacity. Remove the metal pole carefully through the stuffed material to ensure flow of hot gases from bottom to top for continuous heat transfer through the material.
- Ignite the bottom of the kiln with the locally available dry twigs at firing point of the kiln base vent to raise the temperature for spontaneous ignition under open atmospheric condition.
- Continue the ignition process until the smoke comes out of kiln through the top vent is blue in color. Close the top vent with the metal lid.
- Transfer the kiln to a flat ground to avoid air entering into kiln. Also seal the edges of the top vent and bottom edges of the kiln to avoid entering into the kiln with a mount of soil.
- Leave the kiln until it becomes cool through the loss of heat. Remove the sand sealing and unload the biochar.
- Garble the biochar to remove the unburnt stuff (if any). Crush the biochar and store in a dry tarpaulin/plastic bags.

Further trials are underway to optimize the structural specifications of the biochar kiln so as to suit for coffee stem (CRIDA biochar kiln is cylindrical in nature & therefore demands labour force to cut CWSB stem into small pieces. A rectangular biochar kiln would be ideal for coffee stem). Efforts are also under way for optimizing the processing methods to produce consistent quality of biochar mainly from fresh collar pruned / uprooted CWSB infested Arabica stems and also cherry husk as well as parchment peels. Studies on the influence of biochar on seedling growth in coffee nursery / field establishment and possibility of using biochar for coffee effluent needs to be studied.

**References:**

India’s North East Region consists of eight states - Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. Coffee cultivation in North-East started on experimental basis during 1960s and later commercial cultivation started during 1976. The main objective of introducing coffee was to provide sustainable livelihood to the tribals and wean them away from shifting cultivation. Presently, coffee is being cultivated in an area of 8696 hectares in the North-Eastern states. But productivity is far below national productivity.

Keeping in view of the above Regional Coffee Research Station, Diphu organized Capacity Building Programme for tribal coffee growers of Meghalaya and Nagaland during the month of September and October 2019 to educate the coffee growers on various activities on coffee cultivation, alerting them of arising problems and its precautions.

The main objective of the programme was to transfer the technology to the tribal coffee growers who are found to less effective in technological adoption.

The participants were twenty during September and fifty during October 2019. On the first day, Smt Bijaya Barman, officer in Charge, RCRS, Diphu delivered presentation to the growers on agronomic practices for coffee cultivation and mixed cropping in coffee to increase the productivity and boost the income. Later the growers were taken to coffee nursery and coffee estate where they have been demonstrated nursery practices, cultural operations like bush management, soil moisture conservation.
measures, method of fertilizer and compost application, borer tracing, lime application against white stem borer and different methods of composting.

On the second day, the participants were taken to RCRS, Diphu farm and divided into ten groups. Each group was allotted 5 bushes where they need to perform all the cultural operations what they have been demonstrated by Smt B.Barman, Officer in Charge, RCRS, Diphu and Sri S. Das, Extension Inspector. After completion of the estate level operations carried out by each group, the correctness of the operations carried out was judged and efficiency evaluation of the group was done.

In open discussion, the problems faced by the growers were discussed and analyzed. The participants responded positively and the training method was found to be more effective. The programme concluded with vote of thanks.
International Coffee Day Celebration

Office of the Deputy Director (Extension), Virajpet, South Kodagu celebrated International Coffee Day in collaboration with Krishi Vigyan Kendra, Gonikoppal, NABARD and Puthari Farmers Producer Organization on 01.10.2019 at KVK, Gonikoppal. In the beginning of the program, an anthem on International Coffee Day was played to bring the vibrant mood in the participants.

The Dy. Director of Extension, Coffee Board, Virajpet delivered the introductory speech on International Coffee Day and briefed that the celebration of International Coffee Day to motivate people to drink pure coffee which enable to increase internal domestic consumption as well as to realize better price for our own grown coffee.

Sri. Sreenivas, Divisional Development Officer, NABARD also explained the need of this function for the welfare of the coffee growers.

Sri. M. M. Chengappa, Member, Coffee Board attended as a special guest, explained the Board’s Coffee Support Schemes, creating awareness among the coffee growers on importance of Soil analysis. Further, he emphasized on increasing domestic consumption of coffee by establishing coffee shops in every important tourist spots. He also assured that matter will be discussed in the next Board meeting to bring down the percentage of chicory allowed in coffee. He also suggested that the International Coffee Day should be celebrated in a grand manner in the future years.

Sri. Saju George, Head of KVK, Principal Scientist narrated the support schemes of his organization pertaining to coffee.

The marketing possibilities for coffee farmers for marketing their own products with distinct profile of them were informed by Sri. Subbaiah, President, Puthari FPO. He recalled that, the Secretary, Coffee Board has assured to support the group in establishing their own brand. Sri. Kariyappa, Puthari FPO wanted the need for extending financial support from Coffee Board for cup tasting.

In the Technical session Dr. J.S. Nagaraj, Division Head, Post-Harvest Technology, CCRI, CRS has presented “Coffee Processing at Estate and factors influencing out turn and quality coffee”.

The participants were actively participated in the celebration and interacted with the Scientist and clarified their doubts on quality issues and its maintenance. Finally, the Coffee pledge was taken by all the participants that “to use only Chicory Free Coffee” in future.
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Bengaluru to host World Coffee Conference

Bengaluru will host the fifth edition of the World Coffee Conference (WCC), a high-profile international event, between September 7 and 12 in 2020. Earlier editions were held in the UK, Brazil, Guatemala and Ethiopia.

The six-day event will be put together by London-based International Coffee Organization (ICO), Ministry of Commerce & Industries, Coffee Board of India and India Coffee Trust (ICT), which is a forum for coffee growers and exporters.

ICT president Anil Kumar Bhandari told The Hindu, “The prestigious WCC coming to India for the first time means huge international recognition for Indian coffee. The Who’s Who from the world of coffee will be descending on Bengaluru for this event. This will give a fillip to the Indian cuppa in the global market.”

The participants will include the world’s leading coffee brands and café chains, retailers, roasters, equipment manufacturers, coffee organisations from round the globe, policy makers, industry captains, exporters, manufacturers and a whole host of players associated with the commodity. Around 1,000 international delegates from 80 countries, 2,000 Indian delegates, over 1,00,000 coffee growers & exporters, representatives of HORECA (Hotel/Restaurant/Café sector) and hundreds of coffee connoisseurs are expected.

Speaking at a curtain raiser on Thursday, Coffee Board chairman M.S. Boje Gowda said, “It is our pride that India commands a position in the global coffee market place. Our coffee story started in Chikkamagaluru with just seven beans. Today, Karnataka accounts for almost 80% of the country’s total production of the commodity. It is our duty to introduce the power of this bean to the rest of the country and the rest of the world.”

Commenting on the increasing share of Asian/Indian coffee in global markets, ICO executive director Jose Dauster Sette said, “Coffee is the world’s most favourite beverage with 2.5 billion cups consumed every single day. It is produced in 78 countries, most of them developing countries in Africa, Latin America and Asia.”

“India is the sixth largest producer of coffee in the world, accounting for about 5% of production. Asia, with countries like India, Vietnam, Indonesia and Nepal, now accounts for almost 33% of the world production. Consumption is growing anywhere between 6% to 15% in Asia as against the world average of about 2%. Asia has emerged as a region of high importance in the global coffee business,” the ICO executive said.

Source: The Hindu
National Cooperative Development Corporation is promoting various development programmes through Cooperatives for agricultural activities like production, processing, marketing & inputs, storage, export & import of agricultural produce, foodstuff and allied activities. NCDC plays a key role in doubling farmers’ income through many modes including its Mission called SAHAKAR-22 targeting 222 districts in the country which include 117 Aspirational Districts identified by NITI Aayog. Activities broadly include:

- Ginning, Pressing & Spinning, Weaving & Garmenting
- Sugar and other agro-processing units
- Credit for procurement and marketing of agriculture product
- Storage and cold chain activities
- Support to Cooperatives for undertaking Consumer Business
- All types of Industrial Cooperatives, Cottage & Village Industries, Handicrafts/rural crafts etc.
- Credit & Service Cooperatives Labour Cooperatives & Service Cooperatives: Water Conservation works & Irrigation in Rural Areas, Animal Care/Health, Agricultural Insurance & Agriculture Credit, Rural Sanitation, Tourism, Hospitality & Transport/ Generation & Distribution of Power by New, Non-Conventional & Renewable Sources of Energy/ Rural Housing/ Hospital / Health Care & Education through Cooperatives etc.
- Integrated Cooperative Development Projects in selected districts
- Weaker Sections Fisheries, Dairy & Livestock, Poultry, Schedule Caste/ Tribe, Handloom, Coir, Jute, Sericulture, Hill area, & Labour & Women Cooperative
- Assistance for Computerization

Net NPA of NCDC are at zero and loan recovery position is approximately 99%. Cumulatively assistance of almost ₹ 1.25 Lac Crore has so far been provided for various cooperative development programmes by NCDC.
‘India has immense role to drive world coffee intake’

A SIA WILL DRIVE world coffee consumption and India can play an immense role in this growth, the International Coffee Organisation said on Thursday.

ICO executive director Jose Dauster Sette said per capita consumption of coffee in India is 100 gm per person per year, while in Brazil which has invested in its internal market, each person consumes six kilos annually. “That's 60 times what India consumes. So, there is lot of space to grow consumption here in India,” Sette told PTI there.

Growth in consumption has to be led by the private sector, he said, adding that India has important coffee chains like Cafe Coffee Day. “But there is also role for generic promotion... that's something that the (Indian) government can think about; that worked quite well in Brazil in the past,” Sette said.

Earlier speaking at curtain-raiser press conference to announce the fifth edition of the World Coffee Conference (WCC) to be held here from September 7 next year, he spoke about how Asia was important for the global coffee industry.

Although coffee has been produced in the region for many centuries in the past three decades the Asian share of the world coffee production has doubled, growing from 16% to 32%, according to him. This is mostly as a result of emergence of Vietnam as a leading coffee producer, but also due to increases in other countries, including India, he said. “Even more importantly, Asia represents the future of world coffee consumption. While global coffee consumption is growing at just over 2%, demand in South and East Asia is growing at over 5%”

The prospects are particularly promising in India and China, with their large populations and traditional tea-drinking cultures that are increasingly attracted by coffee, - Sette said. India, a founding member of ICO, is the world's seventh largest coffee producer and grows both of the commercially important varieties of coffee - Arabica and Robusta. The country is a fast-growing consuming market.

Sette said global coffee prices have experienced a continued downward trend since 2016, dropping 30% below the average of the last ten years.

Coffee growers all over the world are struggling to cover their operating expenses, while input, compliance and transaction costs continue to rise. Consequently, farm incomes have declined and livelihoods of many coffee-producing households, the majority of which were led by small holders in low and middle-income countries are increasingly at risk, he said.

The slump in coffee prices has severe economic and social consequences for producing countries, Sette pointed out.

The main cause of the fall in prices is excess production, he said, adding, one of the most important ways in which to offset this surplus is by increasing consumption.

Source: Financial Express
Pest of young coffee plants and their management

The transplanting of coffee from the nursery to the main field is usually taken up during the post monsoon season i.e., during September to October. Off-late, the success rate of transplanted seedlings establishment in the main field is reduced compare to the earlier years. This could be because of the changed weather patterns (increased temperature, erratic rain fall pattern, prolonged droughts) and by the increased pest occurrence in the young plants. The common insect pests associated with young coffee plants are Root mealy bug and Cockchafer. Root mealy bug and Cockchafer causes considerable damage as they feed on young roots below the soil. Due to which the affected plants could not able to extract nutrients and water resulting in death of young plants. So, for the establishment of new coffee plantation it is very much essential to know the nature of damage and management of these insect pests.

Mealy Bug (*Planococcus citri* and *Planococcus lilacinus*)

Mealy bugs are small and soft bodied insects. Adult females are wingless; characterized by a thin white or grey wax coating or mealy secretion over their bodies. Males are rare, smaller and winged. Reproduction is mainly parthenogenetic (i.e., without mating). Each female is capable of laying about 1000 eggs. Eggs hatch in about 10 days. Eggs hatch within a few minutes after they are laid. The first instar nymphs crawl away, settle in a place for feeding and secrete the mealy covering over the body. Mealy bugs are very destructive especially root mealy bugs in the nursery and the young plants in the field.

**Symptoms and Nature of damage**

Mealy bugs infest tender branches, nodes, leaves, spikes, berries and roots in large numbers. Young plants succumb to heavy infestation. Leaves become chlorotic, flower buds abort, berries become small and weakening or death of plant if severely infested. If the roots are infested, such plants look wilting and with yellow leaves as it is suffering from moisture stress. Careful examination of infested plant roots will reveal white, cotton-like masses. Infested plants are found associated with ant colonies near the stem region at soil surface by which mealybug infestation could be easily recognized. They are colonized in junction of the lateral and the

**Cockchafer grub feeding on coffee roots**

**Drenching insecticides for root mealy bugs**
main root and suck the sap resulting in drying of such roots; general weakening of the plants, yellowing and narrowing of leaves and death of young plants. Mealy bugs on the root are often protected in a fungal envelope (*Diacanthodes sp.*) which hinders the absorption of nutrients.

**Management of root mealy bugs:**

- Plants exposed to sunlight are favourable to mealybug attack. Optimum shade maintenance helps in regulating the microclimate around the coffee plants.
- Since many of the common weeds found in the coffee plantations harbour mealy bugs, it is best to destroy the weeds regularly.
- Control ants by dusting Quinalphos 1.5D or Malathion 5D around the base of coffee and shade trees.
- Destroy nests of red ant and cocktailed ant
- Drench the infested root zone with Dimethoate 30EC @ 3.3 ml per litre or Chlorpyrifos 20EC @ 3 ml per litre of water

**Cockchafers or white grubs**

Cockchafers (*Holotrichia spp.*) are sometimes a serious pest in new clearings and replanted areas. The grubs feed on roots of many plants. Cockchafer’s adults are reddish brown in colour and feeding the leaves of crop plants or forest trees. The adults usually emerge during March to June after the receipt of first summer shower. After mating, female beetle lays eggs in the soil near the root zone. A single female can lay 60 to 80 eggs. Eggs hatch in 8 to 10 days. The hatched grub is creamy white in colour. It feeds on the roots of coffee seedlings and grown up plants. The grub stage lasts for about six months. The full-grown grub is dirty white with dark brown head. It goes deep into the soil for pupation. The pupal period lasts for 3 to 4 months.

**Symptoms and Nature of damage**

Grown up coffee plants normally withstand the attack. The young plants (1 to 5 years old) attacked by white grubs show yellowing of leaves and stunted growth. Such plants will wilt and die in summer period. Attacked plants can be easily pulled out as they are left with only the tap root.

**Management**

- In white grub-infested areas, incorporate 5 G of Phorate 10G into the soil in the pit at the time of planting.
- Collect and kill the grubs encountered while taking up digging and other farm operations.
- Install light traps after the first summer showers during March to June and kill the trapped adults.
India - The Seventh largest Coffee producer in the world produces 3.20 lakh MTs of the world’s best Sustainable and Scintillating Coffees. Commercial cultivation started in early 19th century by British entrepreneurs. India is the sixth largest exporters in the world thereby, contributing to 5 % world coffee trade. Total area under coffee about 4.54 lakhs hectare involving 3,66,242 small farmers. Indian coffee is primarily an export-oriented commodity with over 70% of the annual production being exported to various destinations around the world. The export potential of coffee is primarily dependent on the country’s coffee production.

Finland is the second largest country in the world for per capita coffee consumption as the each Finns consumes 12 kilograms of coffee per year and eight to nine cups per day is normal in the country according to the International Coffee Association. The reason for consuming more coffee due to extreme cold, temperatures dipping as low as minus 40 degrees in Finland during winter season.

Estonia, a country in Northern Europe, borders the Baltic Sea and Gulf of Finland. It has more than 1,500 islands. Estonians consuming of liquid beverage equivalents, coffee belongs among the most-drunk beverages worldwide with roughly 42.6 liters per person and year (12.6 liters of Roast Coffee and 30 liters of Instant Coffee).

Coffee Board of India trade delegation comprising nine exporters headed by Sri. N.N. Narendra, Director of Finance, Coffee Board, Bengaluru and Dr. K. Thangaraja, Senior Liaison Officer, Coffee Board, Batlagundu visited to Helsinki between 14th and 15th October- 2019 and Estonia on 16.10.2019.

A Seminar has been arranged with the collaboration of Indian Ambassador at Helsinki on 14th of October 2019 and Estonia Chamber of Industry on 16th of October 2019. Mrs. Vani Rao, Ambassador of India to Finland briefed about the programme. Mrs. Raive Luuk, Head of Estonia Chamber of Commerce and Industry delivered introductory speech about the program. Sri N.N. Narendra, Director of Finance, Coffee Board, Bengaluru made a presentation on different aspects on Coffees of India. He also highlighted about the forthcoming Fifth ‘World Coffee Conference 2020’ to be held at Bengaluru during the month of September 2020 and first in Asia continent.

Separate exhibition cum business interaction space was provided to each one of the Indian exporters/ specialty coffee producers. The local
visitors/delegates interacted with the exporters and exchanged their samples and explained their products displayed in the stall.

Boards’ stall was exhibited with different charts and a background of eco-friendly and sustainable nature of Indian coffee estate under natural shade pattern with conservation of biodiversity. Graphics on coffee regions of India was also displayed. Highlighted the different quality Coffees of India to the visitors and shown to them. High quality Roasting and Grinding coffee in attractive packs representing 13 different coffee growing regions of India and specialty coffee of Monsoon Malabar, Mysore Nuggets Extra Bold and Robusta Kaapi Royale were displayed. The green coffee beans of Monsoon Malabar, Mysore Nuggets Extra Bold and Robusta Kaapi Royale (speciality Indian coffees) and Arabica plantation ‘A’, Arabica cherry ‘AB’, Robusta cherry and washed Robusta were also displayed and physically shown to the traders and visitors. In addition to that, promotional literatures such as folders on coffee cultivation, Indian Coffee Magazine, Coffee Data Base, list of exporters of Indian coffee were displayed and distributed to the visitors. Freshly brewed Geographical Indication Indian coffee was served to the participants.

Mrs. Viitala Grand Manager specified introductory remarks on company, followed by Mrs. Noora Piiri; Programme Officer explained on Finn partnership matchmaking service and export to Finland.

Mr. Svante hampf, Chief Executive Officer of Kaffa Roastery briefed on company products and operations are adapted in the unit. Kaffa Roastery annual roasting capacity of 40 MT and also expressed Crop to Cup before marketing the products and highlighted Marketing Channels being adapted in the unit. Further, various samples were displayed which was roasted and ground in the unit. Finally cup taste has been done by the delegates as well as all the visitors.

Mr. Aki Aunola, Chief Executive Officer, explained about Helsinki Coffee Roastery unit and its function. Major quantity of coffee is being procured from Ethiopia, Indonesia and small quantity from Asia, India Pampadumpara estate, situated in Kerala. Helsinki Roastery unit main function in Roasting and selling of graded beans in various brands in country wise.

Visited to the Paulig Coffee Roastery with a roasting volume of 200 MT/day. Paulig is the first large roasters in the world, used only sustainably verified coffee beans this means annually over 50 million Kilograms of coffee sourced through verified sources. i.e., 370 billion sustainable beans in a year. Paulig coffee is certified sustainable UTZ fair trade combined with organic certification. Paulig unit buy 55 to 60 million kilos of green coffee from verified sustainable sources. Our ten biggest coffee countries are located in South and Central America, Africa and Asia.

Mr. Marten Kuusemets, Chief Executive Officer of Brick Coffee Roastery gave a presentation on company products and its functioning, procurement of coffees from various countries, Marketing Channels being adapted in the unit. Further, various samples were displayed which was roasted and ground in the unit. The roaster unit was hand built in Lecco, Italy by Trabattoni, a 107 year old family company
that makes traditional coffee roasters. Trade delegates accompanied us have offered their coffee samples to the roasters in view of their business development.

Ms. Grace Nathaniel, Project Manager India briefed on function of e – Estonia Centre such as, 99% of the service is on line, Internets is the social rights in Estonia, Estonians trust e-solutions and every Estonians has an Electronic ID. Though e-residency facilities in Estonia there is a scope for the exporters to easily access marketing trend as well as traceability of buyers and it will help to expand their business.

Finland imported all its green coffee directly from developing countries, Brazil is the main supplier. A large part of coffee imports are re-exported to Russia in green or roasted form. Specialty Coffee imports registered positive growth, which focuses on higher-value coffees. The emergence of speciality roasters such as Kaffa Roastery, Helsingin Kahvipaahtimo, Turun, Kahvipaahtimo, Mokka Mestarit and The Cafetoria helped to shape the new coffee scene in the capital Helsinki and to maintain the Nordic tradition of lightly roasted coffee beans.

The growing importance of the speciality coffee culture in Finland is illustrated by large coffee events such as the Helsinki Coffee Festival. The festival focused on topics such as the quality of coffee, coffee and health, ‘Cold Brew’, and the coffee culture in Finland. Sales of sustainable coffee are growing in Finland.

India’s Type wise Coffee Exports to Finland

<table>
<thead>
<tr>
<th>Year</th>
<th>Plantation</th>
<th>Robusta Cherry</th>
<th>Robusta Parchment</th>
<th>Green Coffee</th>
<th>R&amp;G Coffee</th>
<th>Instant Coffee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Qty.</td>
<td>Value</td>
<td>Qty. Value</td>
<td>Qty. Value</td>
<td>Qty. Value</td>
<td>Qty. Value</td>
<td>Qty. Value</td>
</tr>
<tr>
<td>2014</td>
<td>76.8</td>
<td>3.2</td>
<td>353.3 8.6</td>
<td>177.6 16.4</td>
<td>4.5 27.1</td>
<td>1.1 122.4</td>
<td>5499.7 139.9</td>
</tr>
<tr>
<td>2015</td>
<td>177.6</td>
<td>5.2</td>
<td>345.6 7.1</td>
<td>134.4 15.8</td>
<td>3.4</td>
<td>- 102.8</td>
<td>4231.3 118.5</td>
</tr>
<tr>
<td>2016</td>
<td>211.2</td>
<td>6.7</td>
<td>345.6 7.3</td>
<td>164.8 18.1</td>
<td>4.1</td>
<td>- 63.4</td>
<td>3019.6 81.5</td>
</tr>
<tr>
<td>2017</td>
<td>96.0</td>
<td>3.0</td>
<td>307.2 7.3</td>
<td>200.4 15.3</td>
<td>5.0</td>
<td>- 71.9</td>
<td>2820.0 87.2</td>
</tr>
<tr>
<td>2018</td>
<td>155.1</td>
<td>3.9</td>
<td>136.0 2.6</td>
<td>325.0 14.5</td>
<td>8.1</td>
<td>0.2 1246.4</td>
<td>1862.7 52.2</td>
</tr>
<tr>
<td>Average (2014-2018)</td>
<td>143.3</td>
<td>4.4</td>
<td>297.5 6.6</td>
<td>200.4 16.0</td>
<td>5.0</td>
<td>0.2 2839.9</td>
<td>3486.7 95.9</td>
</tr>
<tr>
<td>% Share in Total Qty.</td>
<td>4.11%</td>
<td>8.53%</td>
<td>5.75%</td>
<td>18.39%</td>
<td>0.39%</td>
<td>81.45%</td>
<td>100</td>
</tr>
<tr>
<td>CAGR (%) in Qty.</td>
<td>8.23</td>
<td>-18.35</td>
<td>17.45</td>
<td>-0.58</td>
<td>-27.39</td>
<td>-22.67</td>
<td></td>
</tr>
</tbody>
</table>

Source: Coffee Board Database

Estonians continue to be avid coffee consumers. The taste and quality of coffee is important for local consumers and many Estonians own automatic coffee machines that use fresh beans. Fresh Ground Coffee Pods Still Performing Strongly-Estonian continues to invest in a coffee machine that uses pods. The main brands, Paulig Cupsolo and Nescafé Dolce Gusto, are widely...
available in the main retailers, often on sale at discount prices to allow consumers to stock up. On-trade sales saw dynamic growth in 2018, as the number of small takeaway coffee shops in Estonia has been expanding rapidly in recent years.

### India’s Type wise Coffee Exports to Estonia

(Qty. in MT)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>346</td>
<td>10</td>
<td>116</td>
<td>3</td>
<td>462</td>
<td>13</td>
</tr>
<tr>
<td>2015</td>
<td>269</td>
<td>8</td>
<td>20</td>
<td>0</td>
<td>289</td>
<td>10</td>
</tr>
<tr>
<td>2016</td>
<td>259</td>
<td>7</td>
<td>125</td>
<td>2</td>
<td>404</td>
<td>10</td>
</tr>
<tr>
<td>2017</td>
<td>192</td>
<td>5</td>
<td>155</td>
<td>3</td>
<td>347</td>
<td>8</td>
</tr>
<tr>
<td>2018</td>
<td>10</td>
<td>0</td>
<td>107</td>
<td>2</td>
<td>117</td>
<td>2</td>
</tr>
</tbody>
</table>

Average (2014-2018)

- **Plantation Qty.:** 215
- **Robusta Cherry Value in US$ Lakhs:** 6
- **Robusta Parchment Qty.:** 126
- **Green Coffee Value in US$ Lakhs:** 3
- **Instant Coffee Value in US$ Lakhs:** 0
- **Total Value in US$ Lakhs:** 100

% Share in Total Qty.

- Plantation: **39.77%**
- Robusta Cherry: **23.22%**
- Robusta Parchment: **3.69%**
- Green Coffee: **66.69%**
- Instant Coffee: **33.31%**

CAGR (%) in Qty.

- **-52.23**
- **-7.65**
- **-46.23**
- **15.14**
- **-25.71**

Source: Coffee Board Database

The market potential for Indian Coffee is enormous in Finland as well as Estonia. The most important sustainability certification in the Finnish coffee market is UTZ Certified, Fair trade and organic have important presence in niche products. Finland being the largest per capita consumer of coffee was a lucrative market focus as an exporter. Buyer Sellers meet resulted in better idea of the potential of the market and also what is expected from overseas businesses. Finnish had a significant consumption of Indian Washed Robusta and had smaller volume consumption of other Indian grades as a composition of their blends.

The market potential for Indian Coffee in Estonia is massive, here trade establishments are offering more Specialty Coffees and exotic flavors, based on the Estonians’ tastes in coffee are becoming increasingly sophisticated. Estonians are expecting more premium organic coffee brands on the shelves of supermarkets, as these are often well positioned in the organic sections of the largest retail chains.

**Seminar on Coffees in India, Mrs. Vani Rao, Ambassador of India to Finland**

**Exhibition of the Coffee of India - Finland**

*Indian Coffee Trade Delegation visit to Hesinki (Finland) from 14th – 15th October – 2019*
Proposed to Launch POST GRADUATE DIPLOMA IN MANAGEMENT: Agricultural Export & Business Management (PGDM- AEBM: 2020-22)
**OCTOBER**

1. **Leaf Rust**: Post monsoon spraying with 0.5% Bordeaux mixture or 0.2% a.i of Bayleton 25 WP to be completed.
2. Menuring (post monsoon)
3. **Stem Borer**: Spraying / Swabbing / with *Chlorpyriphos* to protect the healthy plants. In open patches and in border areas adjoining poorly maintained estates, adopt any one the measures like scrubbing or coating with 10% lime or wrapping with woven polythene strips made from used fertilizer bags.
4. Control measures against green scale, if necessary.
5. Control measures against cockchafer, if necessary.
6. Control measures against hairy caterpillars.
7. Clean weeding in Arabica blocks.
8. Handling, centreing and de-suckering, where excess vegetative growth is observed. In marginal areas, centreing should be minimised in Arabica to avoid exposure of main stem so as to minimise the risk of stem borer attack.
9. Regulation of temporary shade (by lopping dadaps)
10. Cover digging in new clearings and light digging in older areas, if necessary.
11. Opening cradle pits / staggered trenches in sloppy areas.
13. Cleaning and preparation of drying yard, pulper site and pulping equipment.
15. **Berry Borer**: Harvesting of borer infested berries, if present and treat them with hot water. Installation of Broca traps. Spot spray with *Chlorpyriphos* in Robusta.
16. **Nursery work**: Erection of pendal. Spraying of nursery seedlings with Dithane M-45 or Indofil M45 at 0.4% against brown eye-spot disease.
17. **Root diseases**: Drench the soil with Bavistin 50 WP at 0.4% (24 g/3 lt.) or Vitavx 75 WP at 0.3% (12g/3 lt.) in the early wilting stage. It should be followed by application of F.Y.M. or compost @ 10 kg/plant once in 2 or 3 years.

**North East Monsoon Areas**:

1. Planting of coffee
2. Rest as above

**NOVEMBER**

**South-West Monsoon Areas**

1. Clean weeding in Robusta blocks.
2. Liming for correction of soil wherever necessary
3. In new clearings, cover digging during the year of planting followed by scuffling during 2nd and 3rd year
4. Control measures against hairy caterpillars.
5. Forking, mulching and hutting young plants in new clearings.
6. Winter irrigation with sprinklers in Robusta blocks, depending on rainfall conditions and availability of water.
7. Lime washing young dadap stems.
8. Commencement of Arabica harvesting and processing.
9. Removal and burning of shot-hole borer infested twigs in Robusta coffee.
10. Control measures against coffee berry borer-installation of Broca traps. Spot spray with *Chlorpyriphos* in Robusta.

**North-East Monsoon Areas**

1. Regulation of dadap shade.
2. Post-monsoon spraying with 0.5% *Bordeaux* mixture against leaf rust.
3. Rest as above.

**DECEMBER**

**South-West Monsoon Areas**

1. Harvesting and processing of Arabica to be continued
2. Commencement of Robusta harvesting. Cover the ground with mats to avoid gleanings while harvesting.
4. Cleaning of paths around the estates to prevent fire accidents.
5. Liming for correction of soil pH, wherever necessary.
6. Nursery-collection and drying of jungle soil and FYM

**North-East Monsoon Areas**

1. Spraying with 0.5% *Bordeaux* mixture to be completed. Rest as above
September 2019

In this column, the extracted information from September 2019 Coffee Market Reports of ICO on global production, global prices, world consumption and global exports as well as Indian domestic prices and exports are covered.

Global Production and Consumption

World production in coffee year 2018/19 is estimated to be 3.7% higher at 168.87 million bags, which includes part of the new crop for producing countries with crop years commencing in April and July. Production of both Arabica and Robusta increased in 2018/19, though the majority of the increase came from Robusta, which grew 6.7% to 66.04 million bags compared to coffee year 2017/18. Arabica production increased by 1.8% to 102.68 million bags.

Output rose in all regions except for Mexico & Central America, where the harvest declined by 0.8% to 21.47 million bags. Nearly half of the world’s coffee was produced in South America, where production is estimated 4.8% higher at 80.95 million bags in coffee year 2018/19. Production grew by 4.6% in Asia & Oceania to 48.46 million bags, while output in Africa rose by 1.9% to 17.99 million bags.

Global coffee consumption is estimated to have risen by 2.1% in coffee year 2018/19 at 164.82 million bags. Consumption in importing countries grew by 2.4% to 114.51 million bags while exporting countries’ consumption rose by 1.3% to 50.31 million bags, which represents 30.5% of world consumption.

Coffee production in 2018/19 exceeded global consumption by 4.05 million bags, which marks the second year of surplus. The total cumulative surplus is 5.48 million bags. This surplus has contributed to the low prices this coffee year.

Prices

Domestic Market Prices: ICTA (Bengaluru) Weekly Auction Prices (Rs./kg)

<table>
<thead>
<tr>
<th>Month/ Week</th>
<th>Sep’19</th>
<th>Sep’18</th>
<th>Sep’19</th>
<th>Sep’18</th>
<th>Sep’19</th>
<th>Sep’18</th>
<th>Sep’19</th>
<th>Sep’18</th>
<th>Sep’19</th>
<th>Sep’18</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant ‘A’</td>
<td>234.00</td>
<td>199.50</td>
<td>236.00</td>
<td>---</td>
<td>234.00</td>
<td>185.00</td>
<td>240.00</td>
<td>192.50</td>
<td>236.00</td>
<td>192.33</td>
<td></td>
</tr>
<tr>
<td>Arb.chy. ‘AB’</td>
<td>143.00</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>146.20</td>
<td>---</td>
<td>141.50</td>
<td>140.00</td>
<td>143.57</td>
<td>140.00</td>
</tr>
<tr>
<td>Rob.Chy. ‘AB’</td>
<td>---</td>
<td>139.00</td>
<td>142.00</td>
<td>---</td>
<td>143.50</td>
<td>---</td>
<td>139.00</td>
<td>142.75</td>
<td>139.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

International Spot Prices – ICO Daily Group Indicator Prices of Arabica (Other Milds) and Robustas

The ICO composite indicator fell to 97.74 US cents/lb in September 2019, and it averaged 100.47 US cents/lb in coffee year 2018/19. Prices for the Arabica group indicators rose in September 2019. Brazilian Naturals saw the largest increase, climbing 3% over the month to an average of 98.73 US cents/lb. The Colombian Milds and Other Milds indicators increased by 2.1%, to 131.90 US cents/lb and 128.89 US cents/lb, respectively. The group indicator for Robustas, on the other hand, dropped to its lowest monthly average since April 2010, falling 0.2% to 70.64 US cents/lb in September 2019. A consecutive two-year increase in Robusta...
production, driven primarily by Brazil and Viet Nam, has contributed to the decline.

 Arbitrage between Arabica and Robusta coffees, as measured on the New York and London futures markets, increased by 9.1% to 42.50 US cents/lb, pushed both by a 2.9% increase in the New York futures market and a 1% decline in the London market. The decline drove the London futures market to its lowest level since March 2010, mirroring the fall in Robusta indicator prices. Additionally, certified stocks on the London futures market increased for the sixth consecutive month to 2.62 million bags in September 2019. This is 1.11 million bags higher than their level in September 2018.

**Exports:**

The larger supply in coffee year 2018/19 is reflected in increased shipments. In the first eleven months of coffee year 2018/19, world coffee exports were 9.2% higher than in the same period for coffee year 2017/18, amounting to 120.28 million bags. Arabica shipments for October 2018 through August 2019 are 11.3% higher than in 2017/18, as increased exports of Colombian Milds and Brazilian Naturals more than offset declines in shipments of Other Milds. Colombian Milds rose by 8.6% to 13.88 million bags, while Brazilian Naturals grew by 25.4% to 38.57 million bags. The majority of Colombian Milds is exported by Colombia, and its shipments rose by 7.8% to 12.53 million bags in October 2018 to August 2019. Tanzania and Kenya also shipped more coffee during this period, with their exports rising by 47.4% to 1.04 million bags and by 11% to 743,203 bags, respectively. An increase of 31.1% to 38.72 million bags from Brazil led the growth in shipments of Brazilian Naturals. However, shipments from Ethiopia, the second largest exporter of Brazilian Naturals, decreased by 4.8% to 3.23 million bags.

Exports of Other Milds fell by 4.1% to 24.99 million bags in October 2018 to August 2019. Shipments decreased in six of the ten largest members of this group during this period. Exports from Honduras fell by 5.1% to 6.57 million bags, from Peru by 7.3% to 3.14 million bags and from Mexico by 11.7% to 2.53 million bags. However, Guatemala’s shipments during this period rose by 5% to 3.34 million bags, and exports from Nicaragua rose by 13.2% to 2.64 million bags.

Robusta shipments increased by 5.6% to 42.84 million bags in the first eleven months of coffee year 2018/19. Viet Nam is the world’s largest exporter of Robusta coffee and its total shipments increased by 3.9% to 24.97 million bags. However, India’s exports declined by 5.6% to 5.62 million bags, and Indonesia’s exports decreased by 9.8% to 4.82 million bags. Uganda’s exports remained stable, increasing by 0.6% to 4.09 million bags in October 2018 to August 2019. Côte d’Ivoire’s shipments grew by 49.1% to 1.62 million bags, which more than offsets the 8.4% decrease in exports from the Lao People’s Democratic Republic, amounting to 323,291 bags.

While shipments to date for the coffee year are higher, exports in August 2019 decreased by 4% to 10.45 million bags compared to August 2018. Arabica shipments decreased by 2.3% to 6.54 million bags, and Robusta by 6.6% to 3.9 million bags. The decrease in Arabica shipments was led by Other Milds, which fell by 15.3% to 1.99 million bags in August 2019, while exports of Brazilian Naturals remained stable at 3.27 million bags. Exports of Colombian Milds, however, rose by 18.3% to 1.29 million bags.
### Indian coffee exports (01.01.2019 to 30.09.2019) in MT

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Exports</th>
<th>Provisional exports</th>
<th></th>
<th>Provisional re-exports</th>
<th></th>
<th>Total provisional exports</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>corresponding period last year</td>
<td></td>
<td>corresponding period last year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Ar. Pmt.</td>
<td>32758</td>
<td>35427</td>
<td>7</td>
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<td>32764</td>
<td>35427</td>
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<tr>
<td>2</td>
<td>Ar.Chy.</td>
<td>8714</td>
<td>10570</td>
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<td>0</td>
<td>8714</td>
<td>10570</td>
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<tr>
<td>3</td>
<td>Rob.Pmt.</td>
<td>30832</td>
<td>22465</td>
<td>0</td>
<td>0</td>
<td>30832</td>
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</tr>
<tr>
<td>4</td>
<td>Rob.chy.</td>
<td>129402</td>
<td>127501</td>
<td>0</td>
<td>0</td>
<td>129402</td>
<td>127501</td>
</tr>
<tr>
<td>5</td>
<td>Roasted seeds</td>
<td>61</td>
<td>53</td>
<td>0</td>
<td>0</td>
<td>61</td>
<td>53</td>
</tr>
<tr>
<td>6</td>
<td>R&amp;G</td>
<td>141</td>
<td>190</td>
<td>1</td>
<td>0</td>
<td>142</td>
<td>191</td>
</tr>
<tr>
<td>7</td>
<td>Instant</td>
<td>16199</td>
<td>21613</td>
<td>69851</td>
<td>68531</td>
<td>86050</td>
<td>90144</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>218108</strong></td>
<td><strong>217820</strong></td>
<td><strong>69858</strong></td>
<td><strong>68531</strong></td>
<td><strong>287966</strong></td>
<td><strong>286351</strong></td>
<td></td>
</tr>
</tbody>
</table>

Compiled by: Dr. D.R. Babu Reddy, Dy. Director (Market Research), Coffee Board, Bengaluru

### सितंबर 2019

इस कॉलम में, भारतीय स्वदेशी मूल्यों एवं निर्यातों के साथ साथ, वैश्विक उत्पादन, वैश्विक मूल्य, वैश्विक उपभोग, वैश्विक निर्यातों पर आई सी और काफ़ी बाज़ार रिपोर्ट, सितंबर 2019 की सार सूचना सम्मिलित है।

### वैश्विक उत्पादन एवं उपभोग

काफ़ी वर्ष 2018/19 में विश्व उत्पादन 168.87 मिलियन बैंस पर 3.7% अधिक होने का अनुमान है, जिसमें अफ्रीका और जुलाई में शुरू होने वाले फसल वर्ष के साथ उत्पादक देशों की नई फसल का एक भाग शामिल है। 2018/19 में अरेबिका और रोब斯塔 दोनों के उत्पादन में घट हुई, हालांकि अधिकांश बड़ी रोबस्टा रुपरेखा से हुई, जो काफ़ी वर्ष 2017/18 की तुलना में 6.7% के साथ 66.04 मिलियन बैंस तक बढ़ी। अरेबिका का उत्पादन 1.8% बढ़कर 102.68 मिलियन बैंस हो गया।

मैक्सिको और मध्य अमेरिका को छोटकर बाकी सभी क्षेत्रों में उत्पादन बढ़ा, जहाँ फसल 0.8% घटकर 21.47 मिलियन बैंस हो गया। विश्व के लाभगत आधी काफ़ी का उत्पादन दक्षिण अमेरिका में हुआ था, जहाँ 2018-19 के काफ़ी वर्ष में उत्पादन 4.8% बढ़कर 80.95 मिलियन बैंस होने का अनुमान है। एशिया और ओशियनिया में उत्पादन 4.6% बढ़कर 48.46 मिलियन बैंस हो गया, जबकि अफ्रिका में उत्पादन 1.9% बढ़कर 17.99 मिलियन बैंस हो गया।

वैश्विक काफ़ी का उपभोग काफ़ी वर्ष 2018/19 में 2.1% बढ़कर 164.82 मिलियन बैंस होने का अनुमान है। आयात करने वाले देशों में उपभोग 2.4% बढ़कर 114.51 मिलियन बैंस हो गया, जबकि निर्यात के देशों में उपभोग 1.3% बढ़कर 50.31 मिलियन बैंस हो गई, जो विश्व का उपभोग का 30.5% है।

2018/19 में काफ़ी का उत्पादन वैश्विक उपभोग से 4.05 मिलियन बैंस अधिक हो गया, जो कि अधिशेष के दूसरे वर्ष को दरसाता है। कुल संचयी अधिशेष 5.48 मिलियन बैंस है। इस अधिशेष ने इस काफ़ी वर्ष में कम कोमतों का योगदान दिया है।
### स्वदेशी व्यापारी भाषा मूल्य : (अंतरराष्ट्रीय) साफ़िहिक नीतामी मूल्य (₹ / किमी)

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### अंतरराष्ट्रीय वातावरण मूल्य - अंतरराष्ट्रीय (अन्य मूद) तथा रोबस्टा के आई सी औ देशी सम्मूच सूक्ष्मकांक

सितंबर 2019 में, आई सी औ सम्मूच सूक्ष्मकांक 97.74 यूएस$ सेंटों/एल्बी पर गिर गया, और यह कोफी वर्ष 2018/19 में 100.47 यूएस$ सेंटों/एल्बी औसत रहा गया। सितंबर 2019 में अंतरराष्ट्रीय सम्मूच सूक्ष्मकांक को कमाए गए। ब्राजील के कैफे ने यूएस$ में सबसे बड़ी वृद्धि देखी, जो महीनों - 3% बढ़कर औसत 98.73 अमरिकी सेंटों/एल्बी थी। कोलम्बिया मूद और अन्य मूद के सूक्ष्मकांक 2.1% बढ़कर क्रमशः 131.90 यूएस$ सेंटों/एल्बी और 128.89 यूएस$ सेंटों/एल्बी हो गए। दूसरी ओर, रोबस्टा का सम्मूच सूक्ष्मकांक अप्रैल 2010 से निन्मतम क्रम मात्राक औसत पर गिर गया, जो सितंबर 2019 में 70.64 के साथ अमरिकी सेंटों/एल्बी पर 0.2% गिर गया। रोबस्टा के उच्चतम में लगातार दो सालों की वृद्धि ने मुख्य रूप से ब्राजील और ब्रॉडवेस्ट में गिरावट के कारण बन गया।

न्यूयॉर्क और लंदन के पृथ्वीस बाजारों पर मापा गया, जैसा कि अरबिका और रोबस्टा कोफी के बीच का अंतर 9.1% बढ़कर 42.50 अमरिकी सेंटों/पाउंड हो गया, जो दोस्तों की न्यूयॉर्क पृथ्वीस बाजार में 2.9% की वृद्धि और लंदन मार्केट में 1% की गिरावट दर्जा। रोबस्टा के सूक्ष्मकांक मूल्यों को प्रारंभ मार्च 2010 से लंदन पृथ्वीस बाजार में निम्नतम स्तर पर रखा। इसके अतिरिक्त, लंदन पृथ्वीस मार्केट पर दोनों स्तरों पर रहा।

### निर्धारित:
कोफी वर्ष 2018/19 में अधिकार आमूल के कारण नींव रेट में वृद्धि हुई। कोफी वर्ष 2018/19 के अग्रण या गर्म महीनों में, कोफी वर्ष 2017/18 की अवधि की तुलना में विश्व कोफी नींव 9.2% अधिक था, जिसकी मात्रा 120.28 मिलियन बैंक थी। अंतरराष्ट्रीय का नींव रेट अगस्त 2018 से अगस्त 2019 तक 2017/18 की तुलना में 11.3% अधिक रहा। अन्य मूद के नींवरण में ऑफसेट गिरावट से अधिक कोलम्बिया और ब्राजील के नींवरण में वृद्धि होने के कारण कोलम्बिया मूद 8.6% बढ़कर 13.88 मिलियन बैंक हो गए, जबकि ब्राजील के नींवरण 25.4% बढ़कर 38.57 मिलियन बैंक हो गए। अधिकांश कोलम्बिया मूद कोलम्बिया द्वारा निर्धारित किया जाता है, और अगस्त 2018 से अगस्त 2019 तक इसका नींव 7.8%
बड़कर 12.53 मिलियन बैंग हो गया। तनाजनना और क्रम ने भी इसी अवधि के दोरान अधिक कांफी नियंत्रित किया जो, क्रमशः 47.4% से 1.04 मिलियन बैंग की वृद्धि हुई और 11% से 743,203 बैंग बढ़ गए। योगी से 31.1% के साथ 38.72 मिलियन बैंग की वृद्धि ने नौगरण को बढ़ा दिया। हालांकि, दूसरी सबसे बड़े निर्माताओं को मान्यता दिया।

अक्तूबर 2018 से अगस्त 2019 तक अन्य मूड का निर्माण 4.1% घटक 24.99 मिलियन बैंग हो गया। इसी अवधि के दोरान इस समय के दस सबसे बड़े सदस्यों में से छः नौ निर्माण घट गई। होलाउर, पेरु और मैकिस्को का निर्माण क्रमशः 5.1 फीसदी 6.57 मिलियन बैंग, 7.3% बड़कर 3.14 मिलियन बैंग और 11.7% बड़कर 2.53 मिलियन बैंग हो गया। हालांकि, इस अवधि के दोरान ग्वाटेमाला का नौगरण 5% बड़कर 3.34 मिलियन बैंग हो गया और निकारागुआ से निर्माण 13.2% बड़कर 2.64 मिलियन बैंग हो गया।

कांफी वर्ष 2018/19 के प्रथम यंगर महीनों में रोबस्टा का नौगरण 5.6% बड़कर 42.84 मिलियन बैंग हो गया। वित्तितल्ल रोबस्टा काँफी का विश्व का सबसे बड़ा निर्माता है और इसके कुल नौगरण में 3.9% से 24.97 मिलियन बैंग की वृद्धि हुई है। हालांकि, भारत का निर्माण 5.6% घटक 5.62 मिलियन बैंग हो गया और इंडोनेशिया का निर्माण 9.8% घटक 4.82 मिलियन बैंग हो गया। युगांडा का निर्माण स्थिर रह जो अक्तूबर 2018 से अगस्त 2019 में 0.6% बढ़कर 4.09 मिलियन बैंग हो गया। कोटे डी आइज़ का शिपमेंट 49.1% नौगरण बढ़कर 1.62 मिलियन बैंग हो गया, जो कि लाओ पीपुल्स डेमोक्रेटिक रिपब्लिक से निर्माण में 8.4% की घटक 323,291 बैंस तक पहुँचा।

जबकि कांफी वर्ष में अब तक नौगरण अवधि है, अगस्त 2018 की तुलना में अगस्त 2019 में निर्माण 4% घटक 10.45 मिलियन बैंस हो गया। अरेबिक का नौगरण 2.3% घटक 6.54 मिलियन बैंस और रोबस्टा 6.6% घटक 3.9 मिलियन बैंस रहा। अगस्त 2019 में अरेबिक का नौगरण घटक 1.99 मिलियन बैंस के साथ, 15.3% जबकि कभी कभी अन्य मूड के प्रति सूक्ष्मता किया। ब्राजील के नैरुरल का निर्माण 3.27 मिलियन बैंस पर स्थान रहा। हालांकि, कॉलंबिया मूड का निर्माण 18.3% बड़कर 1.29 मिलियन बैंस हो गया।

### भारतीय कांफी निर्माण (01.01.2019 से 30.09.2019 तक में)

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कॉफ़ी बोर्ड के मुख्य कार्यालय में महात्मा गांधी जी की 150 वीं जन्म-जयंति के सम्मारण में दि. 01.10. 2019 को आयोजित वक्तव्य संबंधी संशोधन रिपोर्ट

बंगालूरु स्थित कॉफ़ी बोर्ड के मुख्य कार्यालय में 02.10.2018 से 02.10.2019 तक आयोजित राष्ट्रीय महात्मा गांधी जी की 150वीं जन्म-जयंति के उपलब्धियों में 01.10.2019 को दोपहर 03.00 बजे मुख्य कार्यालय के नीलाम कक्ष में “आधुनिक जीवन पर महात्मा गांधी के सिद्धांतों का प्रभाव” विषय पर कवच भाषण में वक्तव्य आयोजित किया गया।

ईश-वंदना के साथ कार्यक्रम का शुभारंभ हुआ। उसके बाद महात्मा गांधी जी के जीवन-वृत्त तथा प्लास्टिक प्रदूषण (कागज में) पर दो लघु फिल्मों का प्रदर्शन किया गया। तदुपरांत, श्री सी. मादप्य, कनिष्ठ हिंदी अनुवादक, राजभाषा स्कंध ने मंचासीन कॉफ़ी बोर्ड के वरिष्ठ सलाहकार डॉ. वाई. रघुमुलु एवं ए. पी. अनंत कुमार, संयुक्त सिद्धांत (वि./प्रशा.) तथा विशेष अतिथि डॉ. टी. जी. भ्राष्टरकर प्रेमी, प्राचार्य (संवाचिवृत), बंगालूरु विश्वविद्यालय का स्वागत किया तथा उसके बाद सभागार को अतिथि वक्ता का संबंधित परिचय कराया।

विशेष अतिथि डॉ. टी. जी. भ्राष्टरकर प्रेमी ने अपने दिलचस्प एवं बहुमुखी उद्धोधन के दौरान, राष्ट्रीय महात्मा गांधी जी के संपूर्ण जीवन पर प्रकाश डालते हुए गांधी जी के तीन महत्वपूर्ण सिद्धांतों कैसे - सत्य, अहिंसा व सेवा की ओर सभी का व्याख्या आरंभित किया। उसके बाद, उन्होंने हार्दिक जीवन पर उनके प्रभाव के परिणाम पर बल देते हुए सभी से अनुरोध किया कि हम अपनी जीवन-रूऩी पर महात्माजी के सिद्धांतों को अपनाएं। उन्होंने यह भी बताया कि आधुनिक जीवन की बापूजी के ये सिद्धांत जैसे प्रभावित कर सकते हैं।

इस कार्यक्रम के दौरान, बोर्ड की वारिष्ठ गृह पत्रिका ‘अंकुर’ का लोकार्पण भी किया गया तथा श्री जगदीश. आर, वरिष्ठ सहायक, इंडिया कॉफ़ी अनुभाग के धन्यबाद ज्ञापन एवं राष्ट्रीय के साथ कार्यक्रम समाप्त हुआ। श्री सी. मादप्य, कनिष्ठ हिंदी अनुवादक, राजभाषा स्कंध ने इस कार्यक्रम का मंच संचालन किया।
## Advertisement Tariff

<table>
<thead>
<tr>
<th>Position: Page</th>
<th>Rate in rupees</th>
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<tbody>
<tr>
<td>Back Cover in colour</td>
<td>15,000</td>
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<tr>
<td>Inside Page Cover Colour</td>
<td>12,000</td>
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<tr>
<td>Inside Full Colour Page</td>
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<tr>
<td>Black &amp; White</td>
<td>7,500</td>
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<tr>
<td>Inside Half Colour Page</td>
<td>6,000</td>
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<tr>
<td>Black &amp; White Page</td>
<td>4,000</td>
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**GST: 5% ON ABOVE TARIFF**

## Size Specifications

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<tr>
<th>Particulars</th>
<th>Size</th>
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<tbody>
<tr>
<td>Full Page Non-bleed</td>
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<tr>
<td>Full Page Bleed</td>
<td>Trim Area: Width 230mm x Height 255mm</td>
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<td>Bleed Area: Width 200mm x Height 270mm</td>
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<tr>
<td>Half Page Non-bleed</td>
<td>Width 171mm x Height 111mm</td>
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</tbody>
</table>

## Terms & Conditions

- The above rate is per insertion only.
- Advertisement charges are payable in advance. Demand Drafts should be in favour of Coffee Board EUSR, Account No. 64013040924, Payable at Bangalore.
- Advertisement charges may also be paid through NEFT/RTGS/IMPS etc. to beneficiary A/c No. 64013040924, Bank: State Bank of India, Branch: Dr. B.R. Ambedkar Veedi, Bengaluru, IFSC: SBIN0040022
  (Note: please provide the UTR/Bank reference number once the money is transferred)
- A discount of 10% is allowed for advertisements booked for 6 continuous insertions, if paid in advance.
- An Agency commission of 15% will be allowed for advertisements placed through accredited advertising agencies subject to submission of NS Accreditation Certificate copy.
- Inserts should be supplied by advertisers. Art work should reach the office of the Assistant Secretary, Coffee Board, No.1, Dr. B.R. Ambedkar Veedhi, Bengaluru-560 001 one month in advance.

## Preferred Soft Copy Formats:

- Corel Draw version 12, PDF, EPS, TIFF, JPEG-in that order meeting the following requirements:
- Minimum Resolution 300 DPI
- All fonts & etc., converted to curves
- Colour/graphics/backgrounds/images converted into CMYK colour profile in case of colour ads and grey scales in case of Black & White ads.
- The publisher cannot ensure quality of those artworks not satisfying the above requirements.
A good quality harvest starts with good flowering

To give your coffee crop the best start for high yields and quality, apply YaraLiva Nitrabor at pre-flowering. Adding YaraLiva Nitrabor to your fertilizer program will ensure:

- Increased flowering, Improved berry setting
- Minimal flowers and berry drop
- Healthy foliage, with improved leaf size and quality
- Fast acting nitrate N, will facilitate easier uptake of nutrients like calcium, magnesium and potassium

YaraLiva®
NITRABOR™

Fully soluble calcium and boron in combination with nitrate nitrogen

For more information
Please Contact :: Kartik Manjunath V : +9199980513375

YaraLiva
NITRABOR